

## REMARKS

This paper is intended as a full and complete response to the Final Office Action dated July 26, 2007, having a shortened statutory period for response set to expire on October 26, 2007.

Claims 61, 67, and 70 are currently amended in the Application.

Claims 1, 3-6, 8-14, 16-34, and 50-57 are currently canceled without prejudice.

Claims 59-62 and 64-72 are currently pending in the application and are in condition for allowance.

Cancellation of the noted claims is not an admission of non-patentability. Applicant has simply canceled those claims without prejudice to place the application in condition for allowance and/or reduce issues for appeal. Entry of the foregoing amendment, and reconsideration of the claims is respectfully requested.

### Claim Rejections -- 35 USC 112

The Office Action rejected Claims 1, 3-6, 8-14, 16-34, 50-62, 64-72 under 35 U.S.C. § 112. The Examiner states "the independent claims are indefinite since one can not determine what are the "solutions."

Applicant has canceled Claims 1, 3-6, 8-14, 16-34, and 50-57 without prejudice, obviating the rejection with respect to those claims.

Applicant respectfully traverses the rejection with respect to claims 58-62 and 64-72. "All claims are construed in light of the specification; the observer looks to the specification to ascertain what has been invented, and understands the claim accordingly" (See *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005)). The term "buoyancy solution" is clearly described and enabled by the Applicant's specification (See Applicant's [Para 29]). Additional buoyancy solutions such as, "a plurality of buoys...[and]...various other distributed buoyancy systems,

including, but not limited to, buoyant coatings, buoyant pipe, or buoyant half shells..." are also described by the Applicant's specification (See Applicant's [Para 52]). Thus, the term "buoyancy solution" in Claims 58 and 66 is clearly described and enabled by the written description. Withdrawal of the rejection is respectfully requested.

The Examiner further comments that "claim 70 is confusing since it requires a buoyant coating which cannot depend from claim 67 which requires a plurality of discrete buoyancy modules." Applicant has amended claim 70 to correct the dependency, thereby obviating this rejection.

The aforementioned clarifications and amendments address all of the 35 USC § 112 rejections. Withdrawal of the rejection and allowance of claims 58 and 66 and those dependent therefrom is respectfully requested.

#### **Claim Rejections -- 35 USC 102**

The Office Action rejected 1, 6, 50, 51, 52-57, 66 and 71 under 35 USC § 102(b) as being unpatentable over *Harrison* (U.S. Patent Number 4,909,670). The Office Action states:

*Harrison* discloses a subsea pipeline (10) comprising a first pipeline (see member 10 @ left side of Figure 4), intermediate buoyant pipeline section (see member 10 @ 20 of Figure 4), the two buoyancy solutions are considered (pipe 10 where member 20 is attached from the center to the right a little bit and from the center to the left a little bit) and a second pipeline (see member 10 @ right side of Figure 4).

Applicant has canceled Claims 1, 6, 50, 51, and 52-57 without prejudice, obviating the rejection with respect to those claims.

Applicant respectfully traverses the rejection with respect to Claims 66 and 71. Buoyancy is not an inherent characteristic of pipe. Pipe, by its very nature, sinks in water, *i.e.* pipe has no buoyancy. Accordingly, the pipe to either side of a buoy cannot be considered a "buoyancy solution." Without the buoy, the pipe will sink. Indeed, *Harrison* clearly

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demonstrates this principle by disclosing: "buoy 20 is released thereby introducing slack to and releasing the axial tension in pipeline 10, enabl[ing] it to closely conform to the contours of the undulating seabed" (*See Harrison* at col. 4 ll. 17-21). The release of the buoy and the resultant sinking of the pipeline by *Harrison* dispels any possibility that the pipeline itself can act as a buoyant member as indicated by the Office Action. Therefore, Applicant believes that *Harrison* does not disclose a buoyancy section comprising two or more spatially arranged buoyancy solutions disposed about an outer diameter thereof as required in Claim 66 and all claims dependent therefrom. Accordingly, withdrawal of the rejection and allowance of Claim 66 and those dependent therefrom is respectfully requested.

The Office Action rejected Claims 1, 3, 5-6, 8-14, 16, 25-27, 33-34, 50, 66-69, 71 and 72 under 35 U.S.C. § 102(a) as being anticipated by *Pollack* (WO 2004/068014; hereafter "*Pollack*"). The Office Action states:

*Pollack* discloses an apparatus (1) to traverse a seabed topographic feature comprising a subsea pipeline (1) constructed to carry fluids from a first location (this is considered as the left of Fig. 1) across the topographic feature to a second location (this is considered as the right of Fig. 1) wherein the topographic feature is selected from the group consisting of subsea basins, domes, valleys, cliffs, canyons, escarpments and combinations thereof, said pipeline including at least one buoyancy region (6, 25) said pipeline comprising a first unbuoyed pipeline section (2) extending from said first location on a sea floor (4) to said distributed buoyancy region and a second unbuoyed pipeline section (3) extending from said distributed buoyancy region to said second location on a sea floor and said distributed buoyancy region connecting said first and said second pipeline sections in fluid communication.

As noted above, Applicant has cancelled Claims 1, 3, 5-6, 8-14, 16, 25-27, 33-34, and 50 without prejudice, obviating the rejection with respect to those claims.

Applicant respectfully traverses the rejection with respect to Claims 66-69, 71 and 72. *Pollack* discloses a "bridging duct section 6" in which the "bridging duct section may comprise a supporting frame 25 along which a bridging duct 26 is supported" (See *Pollack* p. 3, line 33 to p. 4, line 1). *Pollack* discloses that the "frame 25 may comprise buoyancy members," not the duct 26 (See *Pollack* p. 4, line 1). Therefore, Applicant believes that *Pollack* does not teach, show or suggest a buoyancy section having two or more spatially arranged buoyancy solutions disposed about an outer diameter thereof, as required in Claim 66 and those dependent therefrom. Accordingly, withdrawal of the rejection and allowance of the claims is respectfully requested.

### **Claim Rejections -- 35 USC 103**

The Office Action rejected Claims 4 and 70 under 35 U.S.C. § 103(a) as being unpatentable over *Pollack* in view of *Moses* (U.S. Patent Number 5,615,977). The Office Action states that *Pollack* discloses the invention "substantially as claimed" while *Moses* discloses the use of a continuous buoyant coating and the substitution of "the buoyancy means as taught by *Moses* for the buoyancy means as disclosed by [*Pollack*]" would have been obvious to one of ordinary skill in the art "since it is a design choice to substitute equivalent parts for performing equivalent functions."

Applicant has canceled Claim 4 without prejudice, obviating the rejection with respect to that claim.

Applicant respectfully traverses the rejection with respect to Claim 70. Claim 70 is dependent from Claim 66 and includes all of the limitations thereof. Therefore, Claim 70 is patentable for at least the same reasons as Claim 66, as noted above. Withdrawal of the rejection and allowance of Claim 70 is respectfully requested.

Furthermore, Applicant respectfully traverses the rejection with respect to Claim 70 on grounds that the Office Action has not provided any basis, in law or fact, to conclude that "the buoyancy means as taught by *Moses*" is "an equivalent for performing equivalent functions"... "for the buoyancy means as disclosed by [*Pollack*]." Insofar as the record shows, if such assertion is true, it has been gleaned from the Applicant's own specification which is nothing

more than hindsight reconstruction. Hindsight cannot provide the basis for rejection under 35 U.S.C. § 103. Withdrawal of the rejection and allowance of Claim 70 is respectfully requested.

The Office Action rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Harrison* in view of *Luppi* (U.S. Publication Number 2005/0158126, hereinafter *Luppi*).

Applicant has canceled Claim 3 without prejudice, obviating the rejection.

The Office Action rejected Claims 8, 9, 17-27, 28-32, 52-58, 60, 61, 62, 64-65, 67 and 70 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Harrison* in view of *Moses*. The Office Action states that in order to reduce pipeline stress, the use of flexure devices disclosed by *Moses* at the weighted joints disclosed by *Harrison* is obvious. The Office Action then states that *Harrison* teaches the use of weighted joints or anchors at each end of the buoyant section of pipeline, thereby disclosing the invention "substantially as claimed" while *Moses* discloses the use of "flexure devices" at each end of the buoyant section.

Applicant has cancelled Claims 8, 9, 17-27, 28-32, and 52-57 without prejudice, obviating the rejection with respect to those claims.

Applicant respectfully traverses the rejection with respect to Claims 67 and 70. Claims 67 and 70 include all the limitations of Claim 66 from which they depend. Therefore, Claims 67 and 70 are patentable for at least the same reasons as claim 66, as discussed above. Withdrawal of the rejection and allowance of Claims 67 and 70 is respectfully requested.

Furthermore, Applicant respectfully traverses the rejection with respect to Claims 58, 60, 61, 62, and 64-65 on grounds that on grounds that a combination of the references does not teach, show, or suggest the claimed invention. As discussed above, *Harrison* does not teach, show, or suggest the use of a distributed buoyancy region comprising two or more buoyancy solutions disposed thereon. *Moses* discloses the use of "flexible couplings" in two instances; first, at the connection to a surface platform where, "[a]n upper flexible coupling 24...serves to attach the riser 12 to the platform 16" (See *Moses* col. 4, ll. 31-33); and second, between

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individual pipe sections where, "a plurality of intermediate pipe sections 30 coupled to one another...by means of flexible couplings 32" (See *Moses* col. 4, ll. 58-59). Therefore, a combination of *Harrison* and *Moses* does not teach, show, or suggest a subsea pipeline constructed to carry fluids from a first location...to a second location: wherein a first flexure control device is located at said first location, and where the intermediate pipeline is supported using a distributed buoyancy region comprising two or more buoyancy solutions disposed thereon, as required in Claim 58 and those dependent therefrom. Accordingly, withdrawal of the rejection and allowance of Claim 58 and those dependent therefrom is respectfully requested.

\* \* \* \* \*

(signature page to follow)



Having addressed all issues set out in the Office Action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction.

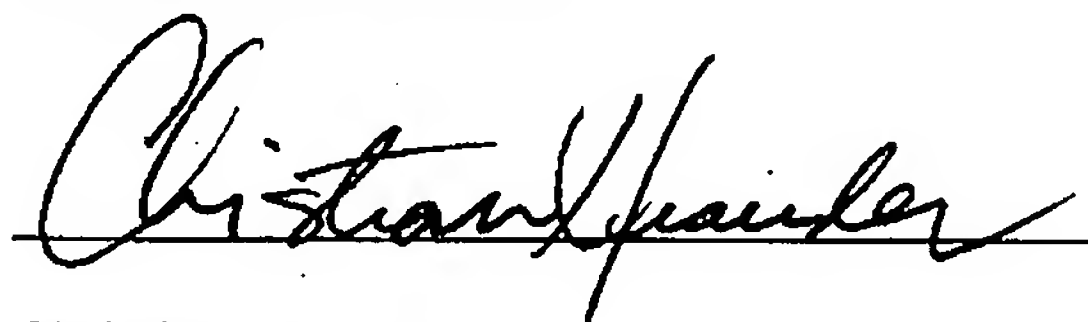
Since this Response is being filed within two months of the mailing date of the Final Office Action, Applicant respectfully requests that the Examiner send the Applicant an Advisory Action regarding this response.

**If any fees are due with the noted amendments, the Director is hereby authorized to charge any fees associated with this filing to Deposit Account Number 11-0400 in the name of Kellogg Brown & Root LLC.**

Applicant thanks the Examiner for his time on the matter.

Respectfully submitted,

Date: 9/25/07



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